

AMENDMENTS TO THE DRAWINGS

Figure 2, please add the step of "Regular Air Conditioning System Start" between step S3 and "END".

The attached "Replacement Sheet" of drawings includes changes to Figure 2 and replaces the original sheet including Figure 2.

REMARKS

Claims 9-25 remain pending in the present application. Claims 1-8 have been cancelled. Claims 9-25 are new. Basis for the new claims can be found throughout the specification, claims and drawings originally filed.

DRAWINGS

Figure 2, please add the step of "Regular Air Conditioning System Start" between step S3 and "END".

The attached "Replacement Sheet" of drawings includes changes to Figure 2 and replaces the original sheet including Figure 2

REJECTION UNDER 35 U.S.C. § 102

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hotta et al. Claims 1-8 have been cancelled.

Regarding New Claim 9:

According to one aspect of the present invention as defined by new Claim 9, airflow 30 from seat-surface air outlets lowers the temperature of the seat-surface itself. The seat-surface can be cooled rapidly and efficiently by the airflow, resulting in energy saving. In addition, airflow from the seat surface air outlets is directed towards the steering wheel.

Hotta et al. discloses dampers (air outlets) 40, 41a, 41b and 43. Airflow from the dampers can certainly cool down the equipment surface around the dampers. The

dampers 41a and 41b are placed on the instrument panel. Consequently, some parts around the dampers on the instrument panel are cooled down. However, the cooling effect is the same as that of conventional air-conditioning. The air conditioner of Hotta et al. can lower the temperature around the dampers 41a and 41b. However, heat radiated from a seat surface, which is closest to a driver, cannot be reduced. As a result, the driver feels hot when he enters a vehicle. Hotta et al. fails to disclose seat surface air outlets as defined by new Claim 9.

As described above, new Claim 9 of the present invention defines seat air outlets arranged on a seat. Airflow from the seat air outlets for preliminary air-conditioning efficiently lowers the seat surface temperature and directs airflow towards the steering wheel. Hotta et al. simply discloses that lowering temperature of the whole room in the vehicle indirectly lowers the seat surface temperature. It takes a long time to lower the seat surface temperature. Further, it wastes power, including battery power. On the contrary, according to the present invention, preliminary air-conditioning airflow from the seat surface air outlets directly lowers the temperature of the seat surface and directs air flow towards the steering wheel. The lowering of the seat surface temperature operates efficiently to save energy.

According to another aspect of the present invention as defined by new Claim 14, airflow from an instrument panel top, an instrument panel front and a seat surface, from which radiated heat makes a driver feel hot, can respectively and directly lower the panel-top surface temperature, panel-front surface temperature and seat surface temperature. The airflow can rapidly and effectively cool down the surfaces, resulting in energy saving.

Further, the airflow from the panel-top air outlets is directed to a windshield to cool down the windshield, and the airflow from the panel-front air outlets is directed to a steering wheel and a seat to cool down the steering wheel and the seat. Thus, the driver does not feel hot due to heat radiated from the panel-top, panel-front and seat when he enters a vehicle.

As discussed above, according to Hotta et al., some parts around the dampers 41a and 41b on an instrument panel can be cooled down. However, the cooling effect is the same as that of conventional air-conditioning. Hotta et al. simply discloses that lowering of the vehicle interior temperature indirectly lowers the equipment surface temperature around the driver. It takes a long time to lower the equipment surface temperature, resulting in dissipation of power, including battery power.

According to another aspect of the present invention as defined by new Claim 19, airflow 10 from the instrument panel-top air outlets lowers the temperature of the instrument panel-top itself. The airflow 10 is also directed to the windshield to lower the temperature of the windshield.

Airflow 20 from the instrument panel-front air outlets lowers the temperature of the instrument panel-front itself. The airflow 20 is also directed to a steering wheel and a seat to lower the temperatures of the steering wheel and the seat.

Airflow 30 from the seat air outlets lowers the temperature of the seat surface itself.

Airflow 50 of the ceiling board outlets lowers the temperature of the ceiling board itself. The airflow 50 is directed to the instrument panel 1, the steering wheel 2, the seat 3 and the windshield to lower the temperature of these equipment.

Airflow 60 from door air outlets lowers the temperature of the door. The airflow 60 is also directed to the window to lower the temperature of the window.

Thus, the instrument panel 1 is cooled down by the airflow 10 and 20 and by receiving the airflow 50. The seat 3 is cooled down by the airflow 30 and by receiving the airflow 20 and 50. The steering wheel 2 is cooled down by receiving the airflow 20 and 50. The door is cooled down by the airflow 60. The window is cooled down by receiving the airflow 60. As a result, heat in the space around the driver is rapidly and efficiently reduced to save power including battery power.

As described above, Hotta et al. only discloses that lowering of the vehicle interior temperature indirectly lowers the equipment surface temperature around the driver.

Thus, applicant believes new independent Claims 9, 14 and 19 patentably distinguishes over the art of record. Likewise, Claims 10-13 which ultimately depend from Claim 9, Claims 15-18 which ultimately depend from Claim 14, and Claims 20-25 which ultimately depend from Claim 19 are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Regarding Claims 10, 11, 15, 16, 22 and 23, these claims further define a timer which stops the preliminary air-conditioning after a period of time or if an event occurs.

Regarding Claims 12, 13, 17, 18, 24 and 25, the air-conditioning is switched from the preliminary air-conditioning to regular air-conditioning when a driver enters the vehicle. Figure 2 has been amended to show this feature of the present invention. Support for this limitation and the amending of Figure 2 is given in the original specification on Page 2, lines 17-19 and Page 5, lines 24-28.

Regarding Claim 20, back seat air outlets have been defined which direct air flow to a back seat.

Regarding Claim 21, front seat air outlets are defined which direct air flow to the steering wheel and back seat air outlets are defined which direct airflow to behind a backrest of the front seat.

CONCLUSION


It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: November 1, 2004

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